

REMARKS

Claims 1-28 are pending in the present application.

In the Office Action, claims 1-7 were rejected under 35 USC 101 because the claimed invention was allegedly directed to non-statutory subject matter. Claims 1-7 have been amended to set forth a computer-implemented method. Thus, Applicant respectfully submits that the subject matter set forth in claims 1-7 is statutory subject matter and request that the Examiner's rejections of these claims under 35 USC 101 be withdrawn.

In the Office Action, claims 15-21 were rejected under 35 USC 101 because the claimed invention was allegedly directed to non-statutory subject matter. In particular, the Examiner alleges that the article set forth in claims 15-21 does not produce a tangible result. Applicant respectfully disagrees and submits that the article set forth in claims 15-21 is an article of manufacture and therefore is statutory subject matter. For example, the article including one or more machine-readable storage media containing instructions may be a floppy disk, a compact disk, a digital video disk, and the like. Applicant requests that the Examiner's rejection of claims 15-21 under 35 USC 101 be withdrawn.

In the Office Action, claims 3, 7-14, 17, and 21-29 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

With regard to claim 3, the Examiner alleges that the steps of "generating an interrupt" and "storing one or more tasks in the queue in response to detecting the interrupt" are unclear. Applicants respectfully disagree and submit that a person of ordinary skill in the art should appreciate that claim 3 describes the sequence of events that may lead to one or more tasks being

stored in the queue in one embodiment of the present invention. However, Applicants have amended claim 3 in order to clarify the claimed invention.

With regard to claim 7, claim 7 has been amended to remove the term "substantially."

With regard to claim 8, the Examiner alleges that it is not clear what the task picker is. Applicants respectfully disagree and note that the specification defines the task picker as a specific task that may select tasks from the queue 810 based on a priority scheme for execution. See Patent Application, page 27, ll. 2-3. The Examiner also alleges that the term "the task" is unclear. Claim 8 has been amended to set forth "the at least one task other than the task picker."

With regard to claim 17, the Examiner alleges that claim 17 suffers from the same deficiencies as claim 3. Applicants respectfully disagree and submit that claim 17 clearly sets forth the nature of the instructions encoded on the article.

With regard to claim 21, the Examiner alleges that the phrase "substantially corresponds" is unclear. Applicants respectfully submit that this phrase does not appear in claim 21.

With regard to claim 22, the Examiner alleges that it is not clear what the task picker is. Applicants respectfully disagree and note that the specification defines the task picker as a specific task that may select tasks from the queue 810 based on a priority scheme for execution. See Patent Application, page 27, ll. 2-3.

Pursuant to the above amendments and arguments, Applicant respectfully submits that claims 3, 7-14, 17, and 21-29 are clear and requests that the Examiner's rejections of claims 3, 7-14, 17, and 21-29 under 35 U.S.C. § 112, second paragraph, be withdrawn

In the Office Action, claims 1-3, 5-7, 15-17, 19-22, 24-25, and 27-28 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lindsley (U.S. Patent No. 6,430,593) in view of Carmon (U.S. Patent No. 5,640,563). Claims 4, 18, 23, and 26 were rejected under 35

U.S.C. § 103(a) as allegedly being unpatentable over Lindsley in view of Carmon and further in view of Kaneko (U.S. Patent No. 5,349,656). The Examiner's rejections are respectfully traversed.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Lindsley describes a task scheduler 2 that allows tasks to issue synchronous task commands, which must wait until the task scheduler 2 has finished processing the previous synchronous task command before issuing another synchronous task command. See Lindsley, col. 10, ll. 26-35. A task command register 301 may include a Task Exit bit that is set to exit a currently executing task. See Lindsley, col. 8, ll. 36-37. A task exit function 124 may set a bit in the task command register 465 to indicate that the current task wishes to exit. The task exit function 124 waits until the task scheduler has cleared the task exit bit. See Lindsley, col. 11, ll. 1-11.

However, Applicants respectfully submit that Lindsley does not teach or suggest associating each task with an exit routine, as set forth in independent claims 1 and 15. Applicants further submit that Lindsley does not teach or suggest calling an exit routine based on determining that the task has not completed, as set forth in independent claims 1, 15, and 22. In particular, Lindsley does not teach or suggest calling the exit routine based on determining that the task has not completed within a preselected period of time (as set forth in independent claims 1 and 22) or calling the exit routine based on determining that the task cannot be processed to completion (as set forth in independent claim 15).

Moreover, as admitted by the Examiner, Lindsley does not teach or suggest storing one or more tasks in a queue, determining at least one task to process based on a priority scheme, or

processing the at least one task. The Examiner therefore relies on Carmon to describe a queue that may be used to store tasks, which may be processed based on a priority scheme. However, Carmon does not remedy the aforementioned fundamental deficiencies of Lindlsey. In particular, Carmon fails to teach or suggest calling an exit routine based on determining that the task has not completed, as set forth in independent claims 1, 15, and 22. Carmon also does not teach or suggest calling the exit routine based on determining that the task has not completed within a preselected period of time (as set forth in independent claims 1 and 22) or calling the exit routine based on determining that the task cannot be processed to completion (as set forth in independent claim 15). The Examiner also relies on Kaneko to describe a first-in, first-out of scheme. However, Kaneko fails to remedy the aforementioned deficiencies of Lindsley and Carmon.

For at least the aforementioned reasons, Applicants respectfully submit that the cited references fail to teach or suggest all the limitations of the invention set forth in independent claims 1, 15, 22, and all claims depending therefrom.

The cited references also fail to provide any suggestion or motivation to modify the prior art to arrive at the claimed invention. To the contrary, Lindsley teaches that synchronous task commands must wait until the task scheduler 2 has finished processing the previous synchronous task command before issuing another synchronous task command. Thus, Lindsley is unconcerned with techniques for handling tasks that cannot be completed or are not completed within a preselected period of time. Carmon is concerned with scheduling tasks based on a priority and reprioritizing the order of execution of the tasks in the queue one over a given task execution is completed. Thus, Carmon is unconcerned with techniques for handling tasks that cannot be completed or are not completed within a preselected period of time.

For at least the aforementioned reasons, Applicants respectfully submit that the Examiner has failed to make a *prima facie* case that the present invention is obvious over the cited references. Applicants request that the Examiner's rejections of claims 1-7 and 15-28 under 35 U.S.C. 103(a) be withdrawn.

In the Office Action, claims 8-10 and 12-13 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Carmon. Claim 11 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Carmon in view of Lindsley. Claim 14 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Carmon in view of Kaneko. The Examiner's rejections are respectfully traversed.

As discussed above, Carmon describes a queue that may be used to store tasks, which may be processed based on a priority scheme. However, Carmon is completely silent with regard to a task picker that may be stored in the queue, as set forth in independent claim 8. Consequently, Carmon fails to teach or suggest a controller that may determine if at least one task other than the task picker is stored in the queue. Carmon also fails to teach or suggest executing the at least one task other than the task picker based on determining that the at least one task other than the task picker is stored in the queue or executing the task picker in response to executing the at least one task other than the task picker and continue executing the task picker until a preselected event occurs, as set forth in independent claim 8. Applicants respectfully submit that neither Lindsley nor Kaneko remedy the fundamental deficiencies of Carmon.

For at least the aforementioned reasons, Applicants respectfully submit that the cited references fail to teach or suggest all of the limitations set forth in independent claim 8 and all claims depending therefrom. Applicants also submit that the cited references fail to provide any suggestion or motivation to modify the prior art of record to arrive at the claimed invention. As

discussed above, Carmon is concerned with scheduling tasks based on a priority and reprioritizing the order of execution of the tasks in the queue one over a given task execution is completed. Carmon also teaches that the priority of tasks is established at task completion times by their relative required execution deadlines. See Carmon, col. 3, ll. 27-29. Accordingly, Carmon is unconcerned with including any task in the queue if the task may continue to execute indefinitely. The task picker described in the specification may execute in an idle mode for an indefinite period of time. See Patent Application, page 27, ll. 13-15. Accordingly, Applicants respectfully submit that Carmon provides no suggestion or motivation to modify the prior art of record to include a task picker in the queue.

For at least the aforementioned reasons, Applicants respectfully submit that the Examiner has failed to make a *prima facie* case that the invention set forth in independent claim 8 and all claims depending therefrom is obvious over the prior art of record. Applicants request that the Examiner's rejections of claims 8-14 under 35 U.S.C. 103(a) be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

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Respectfully submitted,


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